

1 24. The apparatus of claim 18, and further comprising:
2 means for adjusting the predetermined threshold value to thereby cause a
3 control signal to be generated by said voice recognition means when the audio data generated
4 by the user varies from the previously stored voice recognition data.

1 25. An apparatus for voice-activated control of an electrical device, the apparatus
2 comprising:
3 receiving means for receiving audio data generated by a user;
4 voice recognition means for determining if the received audio data is a
5 command word for controlling the electrical device, the voice recognition means including a
6 microprocessor for comparing the received audio data with voice recognition data previously
7 stored in the voice recognition means, said voice recognition means generating at least one
8 control signal based on said comparison when said comparison reaches a predetermined
9 threshold value;
10 power control means for controlling power delivered to the electrical device,
11 said power control means being responsive to said at least one control signal generated by said
12 voice recognition means for operating the electrical device in response to said at least one
13 audio command generated by the user; and
14 means for adjusting the predetermined threshold value to thereby cause a
15 control signal to be generated by said voice recognition means when the audio data generated
16 by the user varies from the previously stored voice recognition data.

1 26. The apparatus of claim 25, wherein the microprocessor is chosen from the
2 group of 8-bit and 16-bit embedded MCU microprocessors.

*add
a5*

Attorney's Docket No. F9618 A

PATENT

COMBINED DECLARATION AND POWER OF ATTORNEY

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,
CONTINUATION OR C-I-P)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type:

(check one applicable item below)

- ☒ original.
- ☐ design.
- ☐ supplemental.

NOTE: If the declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application, do not check next item; check appropriate one of last three items.

- ☐ national stage of PCT.

NOTE: If one of the following 3 items apply, then complete and also attach ADDED PAGES FOR DIVISIONAL, CONTINUATION OR C-I-P.

- ☐ divisional.
- ☐ continuation.
- ☒ continuation-in-part (C-I-P).

INVENTORSHIP IDENTIFICATION

WARNING: If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

Voice-Activated Control For Electrical Device

(Declaration and Power of Attorney [1-1]—page 1 of 7)

SPECIFICATION IDENTIFICATION

the specification of which:

(complete (a), (b) or (c))

(a) ☒ Is attached hereto.

NOTE: "The following combinations of information supplied in an oath or declaration filed on the application filing date with a specification are acceptable as minimums for identifying a specification and compliance with any one of the items below will be accepted as complying with the identification requirement of 37 CFR 1.63:

"(1) name of inventor(s), and reference to an attached specification which is both attached to the oath or declaration at the time of execution and submitted with the oath or declaration on filing;

"(2) name of inventor(s), and attorney docket number which was on the specification as filed;

or

"(3) name of inventor(s), and title which was on the specification as filed."

Notice of July 13, 1995 (1177 O.G. 60).

(b) ☐ was filed on _____, as ☐ Serial No. 0 / _____
or ☐ _____
and was amended on _____ (if applicable).

NOTE: Amendments filed after the original papers are deposited with the PTO that contain new matter are not accorded a filing date by being referred to in the declaration. Accordingly, the amendments involved are those filed with the application papers or, in the case of a supplemental declaration, are those amendments claiming matter not encompassed in the original statement of invention or claims. See 37 CFR 1.67.

NOTE: "The following combinations of information supplied in an oath or declaration filed after the filing date are acceptable as minimums for identifying a specification and compliance with any one of the items below will be accepted as complying with the identification requirement of 37 CFR 1.63:

"(1) name of inventor(s), and application number (consisting of the series code and the serial number; e.g., 08/123,456);

"(2) name of inventor(s), serial number and filing date;

"(3) name of inventor(s) and attorney docket number which was on the specification as filed;

"(4) name of inventor(s), title which was on the specification as filed and filing date;

"(5) name of inventor(s), title which was on the specification as filed and reference to an attached specification which is both attached to the oath or declaration at the time of execution and submitted with the oath or declaration; or

"(6) name of inventor(s), title which was on the specification as filed and accompanied by a cover letter accurately identifying the application for which it was intended by either the application number (consisting of the series code and the serial number; e.g., 08/123,456), or serial number and filing date. Absent any statement(s) to the contrary, it will be presumed that the application filed in the PTO is the application which the inventor(s) executed by signing the oath or declaration."

Notice of July 13, 1995 (1177 O.G. 60).

(c) ☐ was described and claimed in PCT International Application No. _____, filed on _____ and as amended under PCT Article 19 on _____ (if any).

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56,

(also check the following items, if desired)

☒ and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

☐ in compliance with this duty, there is attached an information disclosure statement, in accordance with 37 CFR 1.98.

PRIORITY CLAIM (35 U.S.C. § 119(a)-(d))

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

(complete (d) or (e))

(d) ☐ no such applications have been filed.

(e) ☐ such applications have been filed as follows.

NOTE: Where item (c) is entered above and the international application which designated the U.S. itself claimed priority check item (e), enter the details below and make the priority claim.

(Declaration and Power of Attorney [1-1]—page 3 of 7)

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>

CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)
(34 U.S.C. § 119(e))

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

PROVISIONAL APPLICATION NUMBER	FILING DATE
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____

CLAIM FOR BENEFIT OF EARLIER US/PCT APPLICATION(S)
UNDER 35 U.S.C. 120

- ☒ The claim for the benefit of any such applications are set forth in the attached ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR CONTINUATION-IN-PART (C-I-P) APPLICATION.

**ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

NOTE: If the application filed more than 12 months from the filing date of this application is a PCT filing forming the basis for this application entering the United States as (1) the national stage, or (2) a continuation, divisional, or continuation-in-part, then also complete ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR C-I-P APPLICATION for benefit of the prior U.S. or PCT application(s) under 35 U.S.C. § 120.

POWER OF ATTORNEY

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

(list name and registration number)

Lawrence G. Fridman
Reg. No. 31,615

Siegmar Silber
Reg. No. 26,233

(check the following item, if applicable)

- ☐ Attached, as part of this declaration and power of attorney, is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

SEND CORRESPONDENCE TO

Lawrence G. Fridman, Esq.
Silber & Fridman
66 Mount Prospect Ave.
Clifton, N.J. 07013-1918

DIRECT TELEPHONE CALLS TO:
(Name and telephone number)

Lawrence G. Fridman, Esq.
(973) 779-2580

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

(Declaration and Power of Attorney [1-1]—page 5 of 7)

SIGNATURE(S)

NOTE: Carefully indicate the family (or last) name, as it should appear on the filing receipt and all other documents.

Full name of sole or first inventor

Igor (GIVEN NAME) NMN (MIDDLE INITIAL OR NAME) Zlozkarnik (FAMILY (OR LAST) NAME)

Inventor's signature

Date 11/15/99 Country of Citizenship Germany

Residence 119 Lexington Street, Watertown, MA 02472

Post Office Address

Same as above

Full name of second joint inventor, if any

Daniel (GIVEN NAME) Lawrence (MIDDLE INITIAL OR NAME) Roth (FAMILY (OR LAST) NAME)

Inventor's signature

Date Nov 15 1999 Country of Citizenship USA

Residence 10 Thacher Street, Boston, MA 02113

Post Office Address

Same as above

(check proper box(es) for any of the following added page(s)
that form a part of this declaration)

☐ Signature for fourth and subsequent joint inventors. Number of pages added _____

* * *

☐ Signature by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. Number of pages added _____

* * *

☐ Signature for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR 1.47. Number of pages added _____

* * *

☐ Added page for signature by one joint inventor on behalf of deceased inventor(s) where legal representative cannot be appointed in time. (37 CFR 1.47)

* * *

☐ Added pages to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (C-I-P) application.

☐ Number of pages added _____

* * *

☐ Authorization of attorney(s) to accept and follow instructions from representative.

* * *

(if no further pages form a part of this Declaration,
then end this Declaration with this page and check the following item)

☒ This declaration ends with this page.

(Declaration and Power of Attorney [1-1]—page 7 of 7)

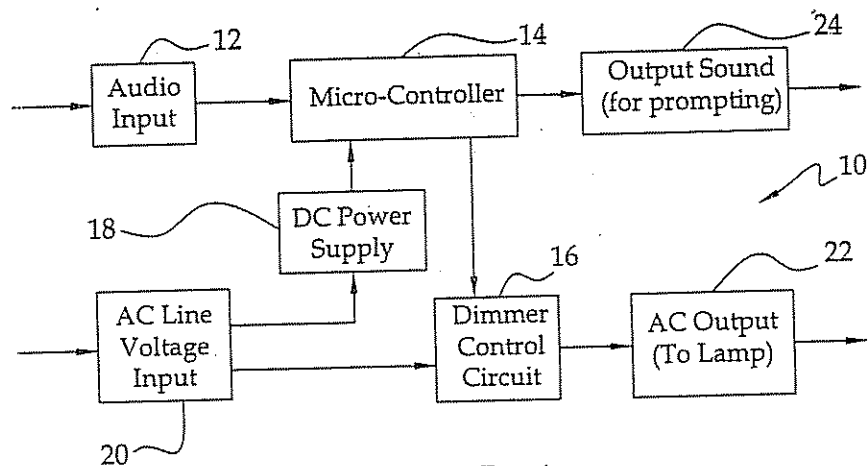


FIG. 1

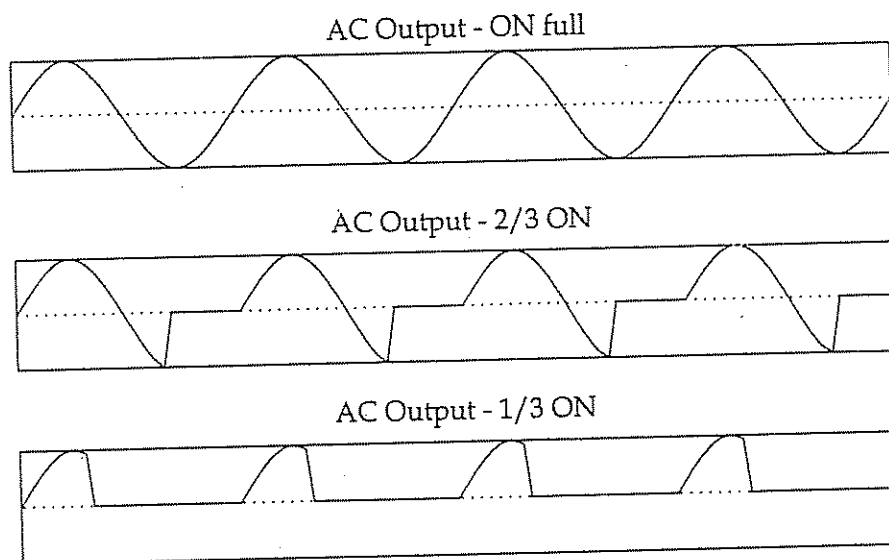


FIG. 2

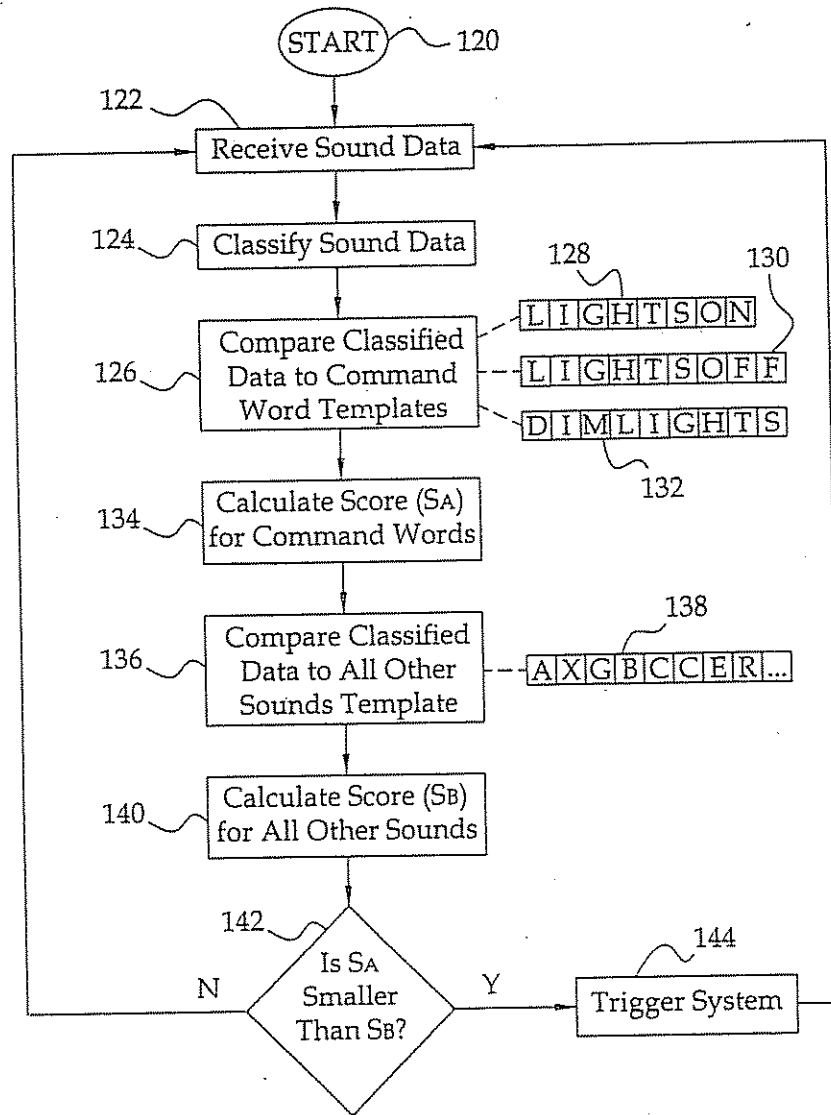


FIG. 3

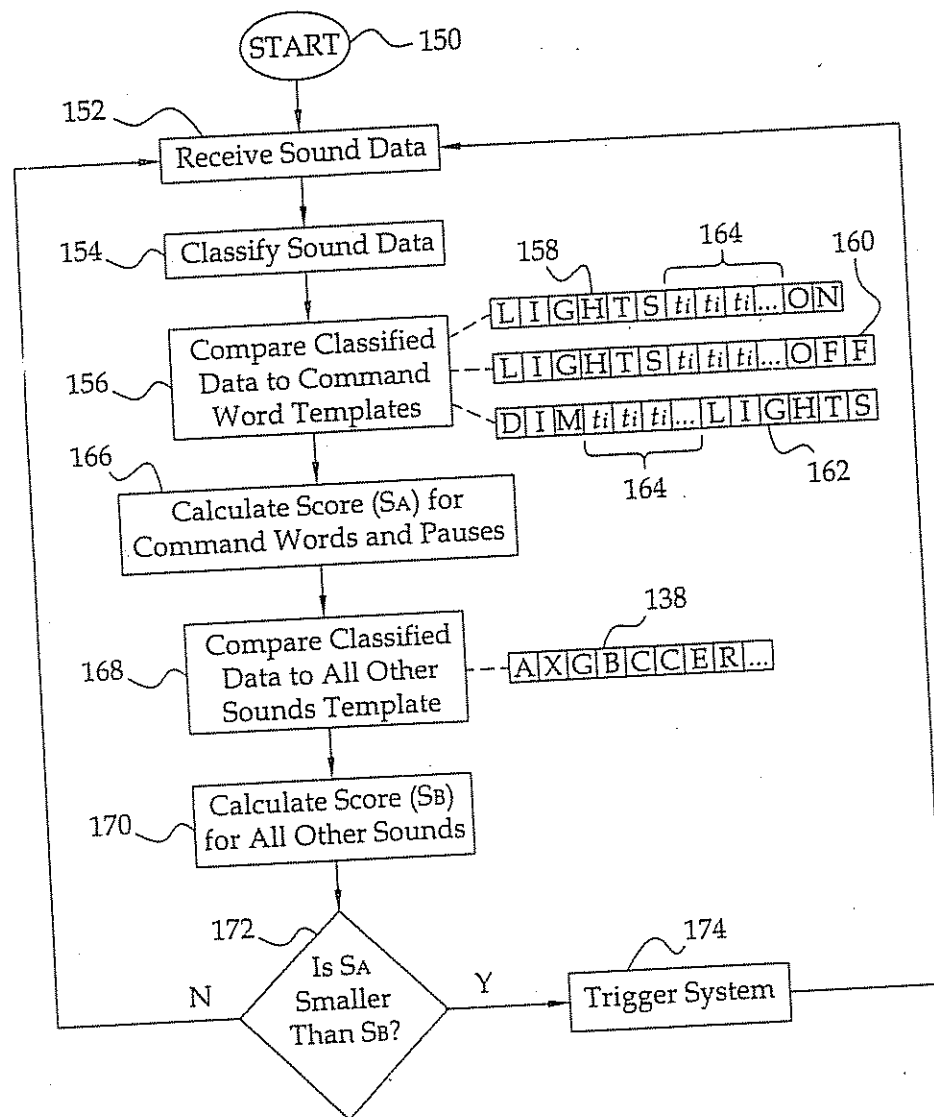


FIG. 4

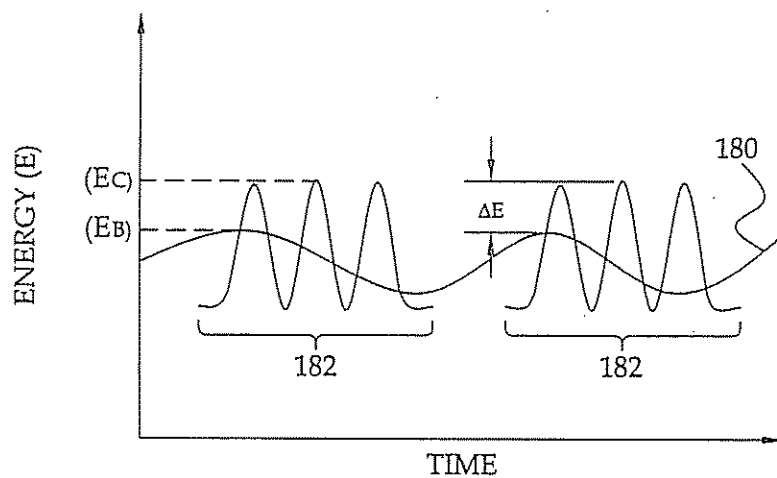


FIG. 5

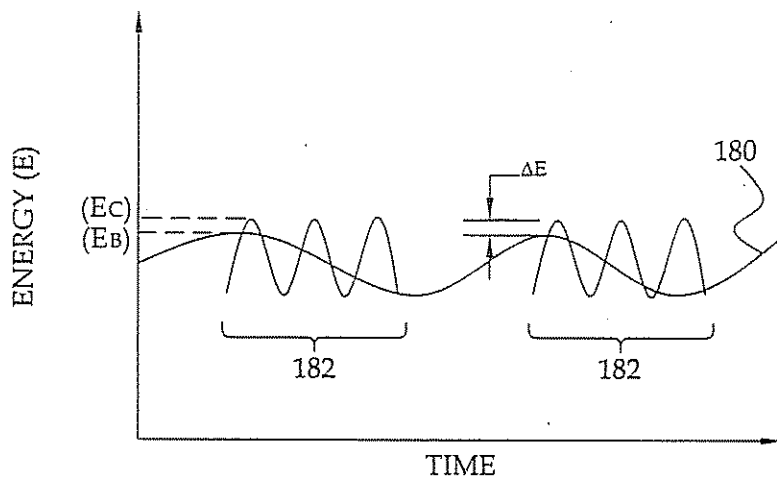


FIG. 6

FIG. 7

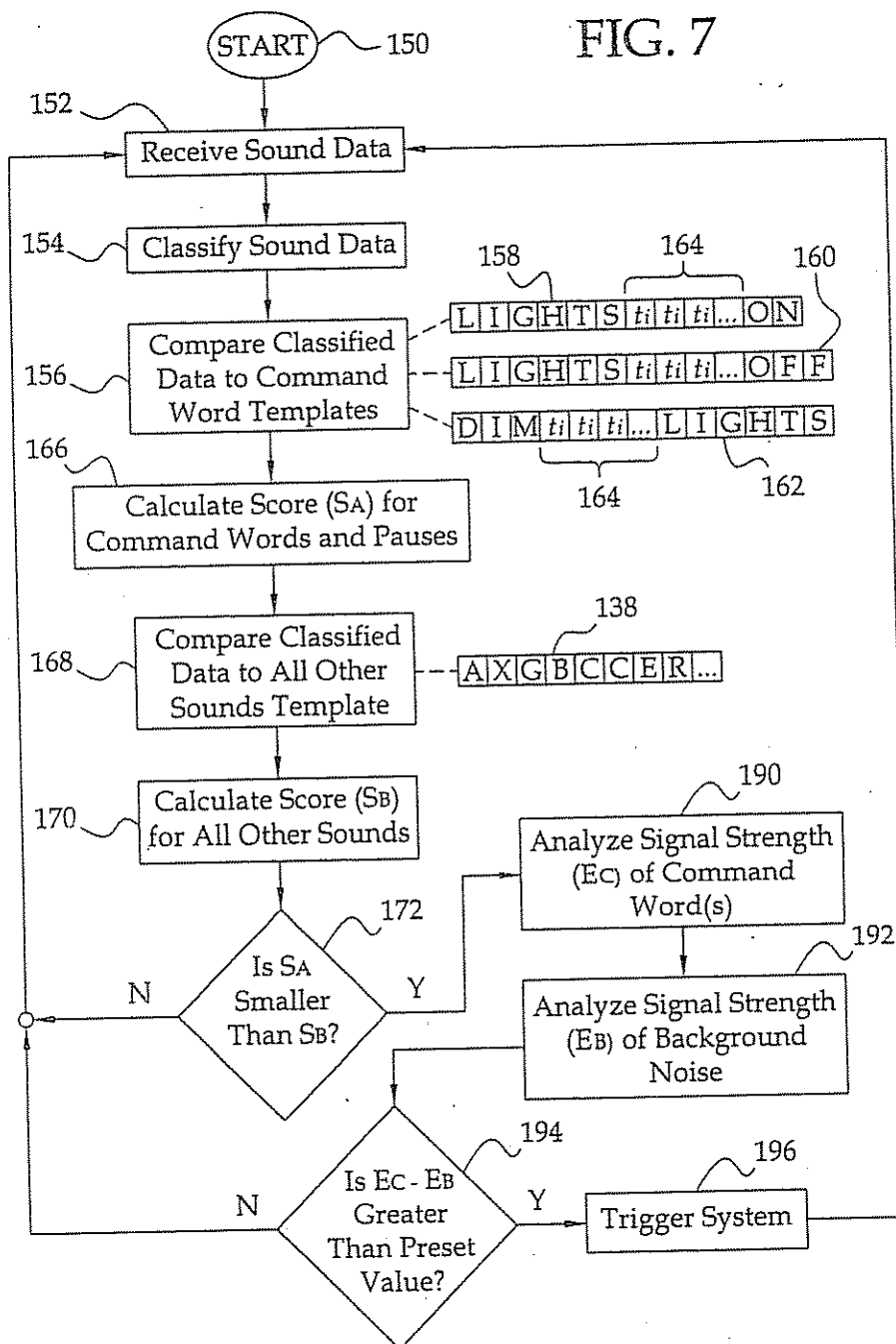
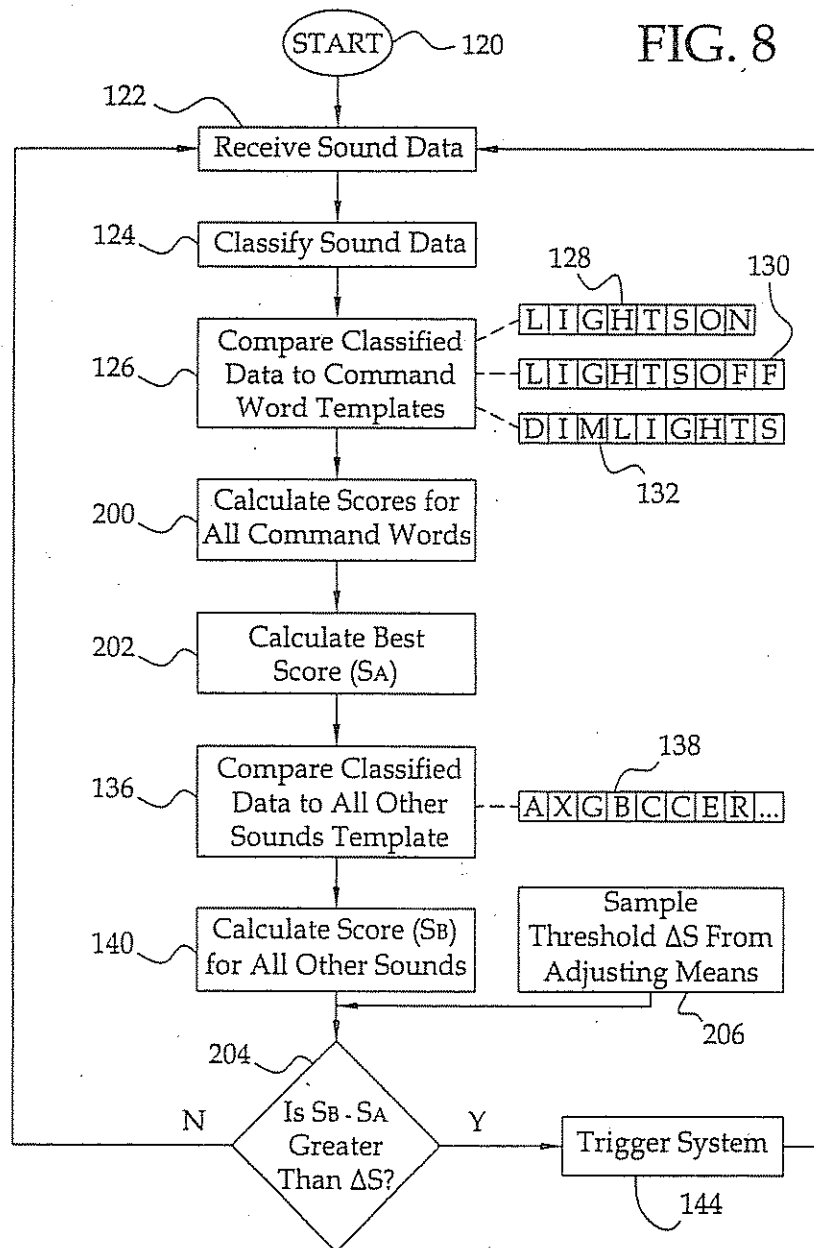


FIG. 8



SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
09/443,957	11/19/99	704	2748	F9618-A

APPLICANT
 IGOR ZLOKARNIK, WATERTOWN, MA; DANIEL LAWRENCE ROTH, BOSTON, MA.

CONTINUING DOMESTIC DATA***
 VERIFIED
DAN N/A

371 (NAT'L STAGE) DATA***
 VERIFIED
DAN N/A

FOREIGN APPLICATIONS***
 VERIFIED
DAN N/A

IF REQUIRED, FOREIGN FILING LICENSE GRANTED 12/17/99 ** SMALL ENTITY **

Foreign Priority claimed 35 USC 119 (a-d) conditions met	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> Met after Allowance	STATE OR COUNTRY MA	SHEETS DRAWING 6	TOTAL CLAIMS 26	INDEPENDENT CLAIMS 4
Verified and Acknowledged <u>DAN</u> Examiner's Initials Initials						

ADDRESS
 LAWRENCE G FRIDMAN ESQ
 SILBERT & FRIDMAN
 66 MOUNT PROSPECT AVE.
 CLIFTON NJ 07013-1918

TITLE
 VOICE-ACTIVATED CONTROL FOR ELECTRICAL DEVICE

FILING FEE RECEIVED 5473	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT NO. _____ for the following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit
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PH 55

x



Bib Data Sheet

CONFIRMATION NO. 8002

SERIAL NUMBER 09/443,957	FILING DATE 11/19/1999 RULE	CLASS 704	GROUP ART UNIT 2655	ATTORNEY DOCKET NO. F9618-A
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APPLICANTS

IGOR ZLOKARNIK, WATERTOWN, MA;

DANIEL LAWRENCE ROTH, BOSTON, MA;

** CONTINUING DATA *****

FOREIGN APPLICATIONS *****

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
* 12/17/1999

** SMALL ENTITY **

Foreign Priority claimed 35 USC 119 (a-d) conditions met Verified and Acknowledged	<table border="1"><tr><td><input type="checkbox"/> yes</td><td><input checked="" type="checkbox"/> no</td></tr><tr><td><input type="checkbox"/> job</td><td><input type="checkbox"/> Mat after Allowance</td></tr></table> Examiner's Signature: _____ Initials: _____	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no	<input type="checkbox"/> job	<input type="checkbox"/> Mat after Allowance	STATE OR COUNTRY MA	SHEETS DRAWING 6	TOTAL CLAIMS 26	INDEPENDENT CLAIMS 4
<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no								
<input type="checkbox"/> job	<input type="checkbox"/> Mat after Allowance								

ADDRESS

LAWRENCE G FRIDMAN ESQ
SILBERT & FRIDMAN
36 MOUNT PROSPECT AVE.
CLIFTON, NJ
070131918

TITLE

VOICE-ACTIVATED CONTROL FOR ELECTRICAL DEVICE

FILING FEE RECEIVED 473	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<table border="1"><tr><td><input type="checkbox"/> All Fees</td></tr><tr><td><input type="checkbox"/> 1.16 Fees (Filing)</td></tr><tr><td><input type="checkbox"/> 1.17 Fees (Processing Ext. of time)</td></tr><tr><td><input type="checkbox"/> 1.18 Fees (Issue)</td></tr><tr><td><input type="checkbox"/> Other _____</td></tr><tr><td><input type="checkbox"/> Credit _____</td></tr></table>	<input type="checkbox"/> All Fees	<input type="checkbox"/> 1.16 Fees (Filing)	<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)	<input type="checkbox"/> 1.18 Fees (Issue)	<input type="checkbox"/> Other _____	<input type="checkbox"/> Credit _____
<input type="checkbox"/> All Fees								
<input type="checkbox"/> 1.16 Fees (Filing)								
<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)								
<input type="checkbox"/> 1.18 Fees (Issue)								
<input type="checkbox"/> Other _____								
<input type="checkbox"/> Credit _____								

GP 2748
1e No. F9618A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re New Application of: Igor Zlokarnik and Daniel Roth
U.S. Application Serial No. 09/443,957

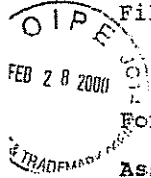
Filed: November 19, 1999

Group Art Unit: 2748

Examiner:

For: Voice-Activated Control for Electrical Device

Assistant Commissioner for Patents
Washington, D.C. 20231



3/1/00
#2 Group 2700
RECEIVED
FEB 27 2001

Dear Sir:

TRANSMITTAL OF
INFORMATION DISCLOSURE STATEMENT

In compliance with the duty of disclosure under 37 CFR 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on the attached form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents are enclosed for the convenience of the Examiner.

In accordance with 37 CFR 1.56(a), this Disclosure Statement is not to be construed as a representation that no other possibly material information as defined in 37 CFR 1.56(a) exists.

Respectfully submitted,
SILBER & FRIDMAN

Lawrence G. Fridman
Registration No. 31,615
Attorney for Applicant

66 Mount Prospect Avenue
Clifton, New Jersey 07013-1918
Telephone (973) 779-2580
Fax (973) 779-4473

MAILING CERTIFICATE

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on February 24, 2000.

Name of person signing: Lawrence G. Fridman

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
(Modified) PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
F9618ASERIAL NO.
09/443,957INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

(37 CFR 1.98(b))

APPLICANT

Igor Zlokarnik and Daniel Roth

FILING DATE

11/19/99

GROUP

2748

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DAW	4 69 1 3 41	9/87	Knoble et al.			
DAW	4 77 6 0 16	10/88	Hansen			
DAW	4 79 7 7 95	1/89	Callahan			
DAW	5 50 4 8 36	4/96	Loudermilk			
DAW	5 80 2 4 88	9/98	Edatsune			
DAW	5 80 9 4 70	9/98	Monjo			
DAW	5 81 5 5 86	9/98	Dobbins			
DAW	5 84 1 8 78	11/98	Arnold et al.			
DAW	5 87 8 3 95	03/99	Bennett			
DAW	5 89 0 1 21	03/99	Borcherding			

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION * YES NO

OTHER DOCUMENTS (Including Author, Title, Date**, Relevant Pages, Place of Publication***)

	IEEE Transactions on Acoustics, Speech, and Signal Processing, Vol. ASSP-29, No. 4. August 1981. Article 1. Training And Search Algorithms For An Interactive Wordspotting System
--	---

EXAMINER

DATE CONSIDERED

30 Nov '01

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

* Use publication date indicated on the patent or published application. 37 CFR 1.98(b).

** The date should include at least the month and year for a foreign application. (check spelling with Lester's original comments as photocopy is not clear! Notice of April 20, 1992 (1138 O.G. 37-41, 38).

*** "The place of publication" refers to the name of the journal, magazine or other publication in which the article was published. . . . Notice of January 9, 1992, 1135 O.G. 13 to 25, at 20.

JY



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
C9/443,957	11/19/1999	IGOR ZLOKARNIK	F9618-A	8002

7390 12/03/2001
LAWRENCE G FRIDMAN ESQ
SILBERT & FRIDMAN
66 MOUNT PROSPECT AVE.
CLIFTON, NJ 070131918

EXAMINER

NOLAN, DANIEL A

ART UNIT	PAPER NUMBER
----------	--------------

2641

DATE MAILED: 12/03/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/443,957	ZLOKARNIK ET AL.	
	Examiner	Art Unit	
	Daniel A. Nolan	2641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 19 November 1999.

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1, 6-9, 16 and 18-26 is/are rejected.

7) ☒ Claim(s) 2-5, 10-15 and 17 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 19 November 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.

* 4) ☐ Interview Summary (PTO-413) Paper No(s). _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

PH 61

Application/Control Number: 09/443,957
Art Unit: 2641

Page 2

DETAILED ACTION

1. This preamble is required to distinguish between the separate processes of "voice recognition" and "speech recognition." Voice recognition identifies individuals, while speech recognition derives meaning from utterances. The USPTO categorizes these separately as class/subclasses 704/246 and 704/251, respectively.

Drawings

2. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

- ° The term "Sample" is not used in conjunction with "Threshold" in the specification as it appears in item 206 of figure 8.

4. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office Action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Specification

6. The abstract of the disclosure is objected to because
- ° It exceeds 150 words in length.
 - ° It is improperly capitalized.
 - ° It contains terms that are more appropriate to claims (such as "at least") and the language is generally not in keeping with the guidelines of the MPEP.
 - ° The summary of the invention starting from the 2nd paragraph at the middle of page 8 is not a summary at all, but amounts to a mere recitation of the claims that is contrary to the spirit and intent of CFR § 1.73: *"Summary of the invention: A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description. Such summary should, when set forth, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed,"*

Further, the language in the summary, being taken directly from the claims, is overly legalistic and not in keeping with the objective of the MPEP.

As the *verbatim* claim terminology is not a summary, the Examiner would err by permitting this cosmetic makeover of the claims to be part of the disclosure as it amounts to having the claims furnish the only specification for themselves.

Where such circular reasoning is not valid, antecedent basis will be lacking.

Correction is required. See MPEP § 608.01(b).

7. The disclosure is objected to because of the following informalities:
 - The term "speech recognition" should be used in place of "voice recognition" throughout the disclosure wherever the purpose and intent is to command or derive meaning from the utterance, as described in the preamble to this action.
 - The plural word "figures" should be used (in the 1st paragraph of page 23).
 - The summary of the invention contains language that is overly detailed and legalistic and therefore is not in keeping with the objective of the MPEP.
 - The acronym "MCU" should be introduced with its full definition at the initial appearance (on page 12). In spite of the obvious redundancy of terms, the Examiner is proceeding with the understanding that this refers to a *memory control unit*.

Appropriate correction is required.

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8. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

9. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- The disclosure that *a pause may substituted for a syllable* (page 6) will not support either a claim where the *pause is measured in terms of syllables*, nor a potential claim of a *pause consisting of multiple syllables* (claims 6 & 17).
A more appropriate unit to designate measurement and duration, or for representation of multiple pauses should be used.
- The specification consistently describes the command as *one word portion and a pause* (end of page 7) but the feature of claim 6 calls for a *first and second word portion separated by pause*. The Examiner is proceeding with the understanding that claim 6 is meant to portray a series of two of the specified command word/pause combinations.

Claim Objections

10. Claims 1-26 are objected to because of the following informalities:

- In claims 6 and 7, the term "at least" should be removed when referring to the pause (being a syllable in length) since that implies that a pause could be multi-syllabic.
- In all claims using the term "voice recognition", the term "speech recognition" should be used wherever the purpose and intent is to command or derive meaning from the utterance, as described in the preamble to this action.
- Regarding claim 7, the acronym "MCU" should be introduced with its full definition at the initial appearance in the claims. Because any other choice would be redundant with the other devices in the configuration, the Examiner is proceeding with the understanding that this refers to a *memory control unit*.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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12. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. Claim 17 recites the limitation "said second command" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Bellegarda et al & Launey et al

16. Claims 1, 6, 8, 9, 16 & 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellegarda et al (U.S. Patent 6,208,971) in view of Launey et al (U.S. Patent 5,086,385).

17. Regarding claim 1, controlling electrical devices with voice has been long practiced to provide independence to persons with disabilities by coupling speech recognition systems (SR) with home automation control interfaces (HA). Launey et al describes such configurations in the Abstract of his disclosure (6th line from the end).

Because Launey et al employs commercial off-the-shelf (COTS) input products, he does not provide internal SR detail. Bellegarda et al, as provider of such SR, describes how the input speech consists of *command word* (abstract line 1) and pauses (column 3 line 26).

18. Regarding claim 6 as understood by the Examiner, the claim is set forth with the same limits as claim 1. The characteristic of speech consisting of words separated by pauses is notoriously well known in the art of speech signal processing and would have been obvious to a person of ordinary skill in that art at the time of the invention.

19. Regarding claim 8, speech recognition is based on the well-known feature of *recording voice recognition data* for use in *comparison* and requires the capacity to

receive audio. It would have been obvious to a person of ordinary skill in the art of speech processing at the time of the invention that a prior recording would provide *recognition*, as that term reflects the contemporary state of technology, that it has yet to introduce a device capable of *speech understanding*.

The subsequent features *generating control signals* are similarly well-known in the art as depicted by the typical figure 1 of Launey et al (58 through 10 to devices).

20. Regarding claim 9, the claim is set forth with the same limits as claim 8. The operation of *training* by recording vocal commands for recognition is notoriously well-known from the earliest forms of speech processing.

21. Regarding claim 16, the claim is set forth with the same limits as claim 8. Bellegarda et al defines the process of a *pause* being detected as a silence between commands (column 3 lines 24-30), which would have made it obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention to interpret a *lack of dynamic spectral activity* of a time as indicative of such a *silence*.

22. With regard to claim 18, the features of the claim concerning components for *receiving voice*, for *voice recognition* including the supporting configuration of the claim are found in claim 23 and are rejected for the same reasons. The further feature of *power controllers responding to audible command* is shown by Launey et al (in figure 1) while Bellegarda et al discloses recognition using HMM (top of column 3).

23. Regarding claim 19, the claim is set forth with the same limits as claim 18. The features of the claim are found in claim 7 and the claim is rejected for the same reasons.

24. Regarding claim 20, the claim is set forth with the same limits as claim 19. Bellegarda et al discloses the notoriously well-known and conventional components of the configuration claimed (figure 5 column 7 line 21-on).

25. Regarding claim 21, the claim is set forth with the same limits as claim 19. The features and configuration are so notoriously well known and conventional that it would have been obvious to a person of ordinary skill in the art of configuration management to employ the receiver, controller and power control mounted on a circuit board to avoid difficulties in procuring commercially available alternatives and maintaining such wired products.

Bellegarda et al, Launey et al & Borcharding

26. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bellegarda et al in view of Launey et al and further in view of Borcharding (U.S. Patent 5,890,121).

27. Regarding claim 7 as understood by the Examiner, the claim is set forth with the same limits as claim 1. While neither Bellegarda et al nor Launey et al describe the components of their inventions in precise terms, the configuration claimed is well known in the art of speech signal processing, as shown by the prior art of record provided by the Applicant with Borcherding in (column 4 line 33-on) and so would have been obvious to a person of ordinary skill in the art of speech signal processing at the time of the invention.

Bellegarda et al, Launey et al & Proxi

28. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellegarda et al in view of Launey et al and further in view of Proxi (PROXI product description, July 1999).

29. Regarding claims 22 and 23, the claims are set forth with the same limits as claim 18. Launey et al discloses the notoriously well-known application of controlling lighting (30 in figure 1) while the features using such commercially available speech recognition systems to enable individuals with handicaps to control their environments – including lighting - has been long utilized in the disabled community. Proxi is typical of such a voice-activated environmental control unit available that would be contemporary with and so serve as prior art to the corresponding features of the immediate application.

Bellegarda et al, Launey et al & Cohrs et al

30. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellegarda et al in view of Launey et al and further in view of Cohrs et al (U.S. Patent 5,960,393)

31. Regarding claim 24, the claim is set forth with the same limits as claim 18. While neither Bellegarda et al nor Launey et al specifically mention *adjusting the threshold*, Cohrs et al considers the scores of background relative to words in the evaluation process of word recognition and in so doing naturally discloses the obvious step of providing for such adjustment (column 6 line 39-on) to allow for operation under varying conditions.

32. Regarding claim 25, the features of *receiving, voice recognition and controlling* are all well known in the art as depicted by the typical figure 1 of Launey et al (64 to 58 through 10 to devices). The further feature of *adjusting threshold* is found in claim 24 and the claim is rejected for the same reasons.

33. Regarding claim 26, the claim is set forth with the same limits as claim 25. The limitations of the processor are the same as those found for claim 7 and the claim is rejected for the same reasons.

Allowable Subject Matter

34. Claims 2-5, 10-15 & 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

35. The following is a statement of reasons for the indication of allowable subject matter:

- ° Regarding claims 2 and 10, where the prior art of record is typical in enabling a device on recognition, the feature of speech recognition actively *preventing operation* while the signal processing is ongoing is not anticipated nor was it found in obvious combination in the prior art of record.
- ° Regarding claims 3 and 11, where prior art can be found that uses the *different scores of words and background* to recognize words in the process of selecting words and excluding background noise. While a case could be made that only recognized words generate control signals, the explicit statement that this difference will directly *generate control signals* was considered to have been neither anticipated nor found in an obvious combination in the prior art of record.
- ° Regarding claims 5 and 15, the features are understood by the Examiner to be the reciprocal corollary to the recognition-action sequence of claims 3 and 10 and so would be found allowable over the prior art of record for the same reasons provided for those claims.

- With regard to claims 4, 12-14 and 17; the claims depend on claims that were found to be allowable and so would they themselves be allowed as a consequence.

36. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

37. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Landell *et al* (U.S. Patent 4,811,399) provides speech recognition adjusting for background noise.
- Salazar *et al* (U.S. Patent 5,774,841) is capable of interfacing speech commands to a variety of controlling devices.

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A. Nolan whose telephone number is (703) 305-1368. The examiner can normally be reached on Monday, Tuesday, Thursday & Friday, between the hours of 6:30 AM and 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached at (703) 305-6137.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314. Label informal and draft communications as "DRAFT" or "PROPOSED", & designate formal communications as "EXPEDITED PROCEDURE".

Any response to this action may be faxed according to the above instructions,

or mailed to: Box AF
 Commissioner of Patents and Trademarks
 Washington, D.C. 20231

or hand-delivered to: Crystal Park 2,
 2121 Crystal Drive, Arlington, VA,
 Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist at phone (703) 305-4700.

Daniel A. Nolan
Examiner
Art Unit 2641

dan

December 2, 2001


Richmond Dorvil
Primary Examiner

Notice of References Cited	Application/Control No. 09/443,957	Applicant(s)/Patent Under Reexamination ZLOKARNIK ET AL.	
	Examiner Daniel A. Nolan	Art Unit 2641	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,774,841	06-1998	Salazar et al.	704/270.1
	B	US-4,811,399	03-1989	Landell et al.	704/253
	C	US-5,086,385	02-1992	Launey et al.	704/270
	D	US-6,208,971	03-2001	Bellegarda et al.	704/275
	E	US-5,960,393	09-1999	Cohrs et al.	704/275
*	F	US-5,890,121	03-1999	Borcherding, Mark A.	704/270
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Proxi (PROXI product description, July 1999)
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

File No.: F9618A

UNITED STATES PATENT AND TRADEMARK OFFICE

In re New Application of: Dr. Igor Zlokarnik, et al.

U.S. Application Serial No. : 09/443,957

Filed: November 19, 1999



Group Art Unit: 2641

Examiner: Daniel A. Nolan

For: Voice Activated Control For Electrical Device

Assistant Commissioner for Patents
Washington, D.C. 20231

RECEIVED

JUN 20 2002

Technology Center 2600

Dear Sir:

RESPONSE TO THE OFFICE ACTION MAILED DECEMBER 3, 2001

Further examination of the referenced application is respectfully requested
in view of the following Amendment and Remarks.

I AMENDMENT

Please amend this application as follows:

In the Claims

Please delete claims 2, 10, 18-26; amend claims 1, 3-9, 12, 16, 17 and
insert new claim 27, as follows:

MAILING CERTIFICATE

I hereby certify that this correspondence is being deposited with the United States
Postal Service, as first class mail in an envelope addressed to Assistant
Commissioner for Patents, Washington, D.C. 20231 on May 21, 2002.

Name of person signing: Lawrence G. Fridman

Signature

PH 77

1 1. An apparatus for voice activated control of an electrical
2 device, the apparatus comprising:
3 receiving means for receiving at least one audio command
a) 4 generated by a user, the at least one audio command having a command
5 word portion and a pause portion, each of the audio command portions
6 being at least one syllable in length;
7 speech recognition data having a command word portion and a
8 pause portion, each of the speech recognition data portions being at least
9 one syllable in length;
10 speech recognition means including a Hidden Markov Model
11 for comparing said command word portion and said pause portion of said at
12 least one received audio command with said command word portion and
13 said pause portion, respectively, of said speech recognition data, said
14 speech recognition means generating at least one control signal based on
15 said comparison, said speech recognition means prevents operation of the
16 electrical device when the spectral content is dynamic;
17 means for analyzing the pause portion of the received audio
18 command for spectral content; and

19 power control means for controlling power delivered to
20 an electrical device, said power control means being responsive to said at
a1 21 least one control signal generated by said speech recognition means for
22 operating the electrical device in response to said at least one audio
23 command generated by the user.

1 3. The apparatus of claim 1, wherein said receiving means receives
2 background noise data in conjunction with said audio command, and further
a2-3 3 comprising means for generating a command word score and a background
4 noise score based on the comparison of the received audio command to the
5 speech recognition data and the background noise data, respectively, said
6 speech recognition means generating said at least one control signal when
7 said command word score exceeds said background noise score.

1 4. The apparatus of claim 3, and further comprising:
2 means for analyzing the command word portion of the
3 received audio command and the background noise data for energy content;
4 and

5 means for comparing the energy content of the command word
6 portion to the energy content of the background noise data and generating a
7 corresponding energy comparison value;

8 wherein said speech recognition means prevents the generation
9 of said at least one control signal when said energy comparison value is
10 below a predetermined level.

02

1 5. The apparatus of claim 1, wherein said receiving means receives
2 background noise data in conjunction with said audio command, and further
3 comprising:

4 means for analyzing the command word portion of the receive
5 audio command and the background noise data for energy content; and

6 means for comparing the energy content of the command word
7 portion to the energy content of the background noise data and generating a
8 corresponding energy comparison value;

9 wherein said speech recognition means prevents the generation
10 of said at least one control signal when said energy comparison value is
11 below a predetermined level.